Research Brief

RAND PROJECT AIR FORCE

Managing Cost and Capacity Data in the Air Force's Air Education and Training Command

Abstract

The Air Education and Training Command relies on cost and capacity data to ensure that it can train the number of professional airmen needed to meet U.S. national security demands. Currently, systemic obstacles prevent these data from flowing to strategic and corporate managers in the most useful way. This PAF study suggests measures to improve the flow and usage of cost and capacity data in the Air Force's technical training programs.

The combat capability of the U.S. military is directly affected by the quantity and quality of its trained personnel. In the Air Force, the Air Education and Training Command (AETC) is responsible for recruiting, training, and educating professional airmen. Despite the fact that AETC has the second largest aircraft fleet among the major commands and the largest number of people passing through its gates, it has the smallest budget. Managing costs and maintaining the necessary training capacity is a considerable challenge. AETC must be able to rapidly build up its capacity in response to changing national security needs and to reduce the pipeline when such demands taper off. To meet these goals, AETC managers require access to high-quality cost and capacity data from its bases as well as analytic tools to use such data in decisionmaking. For example, knowing the actual number of spaces available in training facilities helps policymakers gauge the need for additional infrastructure, set recruitment rates, and modify the training curriculum.

AETC lacks the capability to accurately tap into cost and capacity data at the unit level. This is especially true in the area of technical training, which prepares enlisted personnel for non-pilot jobs such as aircraft maintenance and air traffic control. Most data needed for informed decisionmaking in AETC exist at the direct training and lower management levels and do not flow up to the strategic management and corporate levels. Moreover, strategic management responsibilities are split among multiple organizations including the Air Staff, HQ AETC, Second Air Force, and the individual wing organizations at each base. As a result, data requests and decisions overlap; and there is confusion about who needs certain data, who should get them, and who should be responsible for manipulating and maintaining them.

RAND Project AIR FORCE (PAF) studied training management systems in the Air Force, other U.S. armed services, and the private sector to identify ways to improve the flow and usage of technical training data within AETC. The Air Force should take the following main steps:

Consolidate strategic management functions under one organization. Many of AETC's data flow problems would be resolved if the responsibility for strategic management of technical training were clearly assigned to one organization. This office would clarify who has source data, who has the responsibility to input and process these data, and who needs to receive the aggregated information for decisionmaking.

Develop methodological tools to analyze cost and capacity data. PAF has begun to design simulation tools to help AETC examine capacity constraints and to perform economic analysis of technical training policies. Such tools will not only improve strategic decisionmaking in the long run but will help AETC identify the kinds of data it needs in the short run. Tools might include:

- **A technical training schoolhouse model** can help identify constraints and the marginal costs of increasing capacity in schoolhouses. The latest version of the model analyzes variables such as the number of instructors, class size, assigned dormitory capacity, dining-hall capacity, number of classrooms, number and availability of training devices (e.g., simulators), shift policy, weekend policy, and syllabus sequence. The goal is to understand the cost of producing an airman in a particular specialty code and to identify the factors that contribute to this cost.
- **An end-to-end training model** would clarify the effects of policy decisions on various aspects of recruitment and

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2006		**00-00-2006 to 00-00-2006**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Managing Cost and Capacity Data in the Air Force's Air Education and Training Command	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Rand Corporation,Project AIR FORCE (PAF),1776 Main Street / PO Box 2138,Santa Monica,CA,90407-2138**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**3**	

training. Decisions about what takes place in the schoolhouse can affect the cost and capacity of recruitment, basic military training, and on-the-job training. This model would enable decisionmakers to understand these effects and to compare various policy choices.

These proposed measures would complement current Air Force efforts to develop a Decision Support System/Technical Training Management System (ADSS/TTMS) architecture, which tracks information such as scores and student status and will improve AETC's ability to train airmen effectively and efficiently. ■

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work. This research brief describes work done for RAND Project AIR FORCE and documented in *Air Education and Training Command Cost and Capacity System: Implications for Organizational and Data Flow Changes*, by Thomas Manacapilli, Bart Bennett, Lionel Galway, and Joshua Weed, MR-1797-AF (available at http://www.rand.org/pubs/monograph_reports/MR1797/), 2004, 120 pp., ISBN: 0-8330-3503-7, and *A User's Guide to the Technical Training Schoolhouse Model*, by Thomas Manacapilli and Bart Bennett, TR-378-AF (available at http://www.rand.org/pubs/technical_reports/TR378/), 2006, 98 pp., ISBN: 978-0-8330-3997-2.

RB-125-1-AF (2006)